Crises and Bail-Outs of Banks and Countries: Linkages, Analogies, and Differences

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1. INTRODUCTION

DURING the last decade or so a number of banking crises have occurred in the major industrial nations. It should suffice to mention the thrift industry in the United States, the Scandinavian banks, the Bank of Credit and Commerce International (BCCI), Banesto, Credit Lyonnais, Barings, Banco di Napoli, up to the recent difficulties of Japanese and Asian intermediaries (see Tables 1 and 2). Banking crises have been more severe in developing countries like Venezuela, Bulgaria, Mexico, Hungary, Argentina, Chile, Cote d'Ivoire. Of the 181 member countries of the IMF 131 have experienced banking problems during the past 15 years.[1]

Bank unsoundness is the focus of deep concerns for its possible interactions with macroeconomic instability. In many cases, countries' financial difficulties originated in fact from a banking crisis or were exacerbated by a banking crisis.[2] The potential size and severity of sovereign debt crises in world financial markets which have become highly integrated were highlighted by the ramifications of the Mexican crisis at the end of 1994. The amount of liquidity support mustered by the international community in that episode to bail-out the Mexican economy had no precedents. No established procedure was available to guide authorities in handling a major crisis of that kind. Subsequently, in a number of international bodies policy makers have undertaken to consider various avenues and arrangements to prevent, anticipate and resolve sovereign debt crises. In early 1997, representatives of the countries of the Group of Ten produced a report on

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[1] See IMF (1996b), Goldstein and Turner (1996) and BIS (1996).
[2] See Camdessus (1996).

TABLE 1
Banking Crises (1974–1995)

Country	*Year*	*Bank*	*Procedure and Method to Match the Crisis*	*Sources of Resources*
Germany	1974	*Herstatt*	Liquidation	Banks
Germany	1983	*Schroder & Co.*	Emergency aid	Banks
Italy	1981–1982	*Steinhauslin*	Special administration and afterwards take-over by bank	Banks
Italy	1982	*Banco Ambrosiano*	Liquidation and afterwards take-over by bank	Banks and Central Bank
Italy	1988–1991	*Cassa di Risparmio di Prato*	Emergency aid and afterwards take-over by bank	Deposit insurance and banks
UK	1973–1975	*Secondary banking crisis*	Emergency aid	Banks and Central Bank
UK	1985	*Johnson Matthey Bankers Ltd.*	Capital injection	Banks, Central Bank, parent company
UK	1990	*British & Common-wealth Merchant Bank*	Liquidation	Deposit insurance
UK and Luxembourg	1991	*BCCI (Bank of Credit and Comm. Internat.)*	Liquidation	Deposit insurance
USA	1980s	*Savings and loans*	Special fund (liquidation or take-over by banks)	Deposit insurance and Government
USA	1984	*Continental Illinois*	Special administration and afterwards sale	Deposit insurance, Federal Reserve, banks
USA	1985	*Bank of New York computer failure*	Emergency aid	Federal Reserve
USA	1988	*First Republic Bank*	Special administration and afterwards take-over by bank	Deposit insurance
USA	1990	*Freedom National Bank*	Liquidation	Deposit insurance
USA	1991	*Bank of New England*	Capital injection and afterwards take-over by bank	Deposit insurance, Federal Reserve
Finland	1992–1993	*Several banks*	Government Guarantee Fund	Government

Norway	1991–1992	*Several banks*	Government Bank Insurance and Investment Funds	Deposit insurance, Government, Central Bank
Sweden	1992–1993	*Several banks*	Bank Support Authority	Government
Australia	1990	*State Bank of Victoria*	Take-over by bank	Government
Austria	1992–1993	*Bankhaus Rossler*	Rescue-package and afterwards take-over by bank	Banks and deposit insurance
Canada	1985–1986	*B. British Columbia*	Rescue-package and afterwards take-over by bank	Central Bank and deposit insurance
Denmark	1989	*DK Sparekassen*	Take-over by bank	No external funding
France	1995	*Crédit Lyonnais*	Capital injection	Government
Greece	1988	*Bank of Crete*	Special administration	Central Bank
New Zealand	1989	*DFC New Zealand L.*	Liquidation	Government
Netherlands	1981–1983	*N.V. Slavenburg*	Take-over by bank	No external funding reported
Spain	1978–1983	*54 out the 109 banks in existence experienced financial difficulties*	Take-over by banks, liquidation, deposit insurance	Deposit insurance, banks, Government
Switzerland	1980s	*Weisscredit*	Liquidation	Banks
Switzerland	1983	*Banque Commerciale*	Liquidation	Banks
Switzerland	1991	*Spar und Leihkasse Thun*	Liquidation	Deposit insurance
Switzerland	1992	*Eko Hypothekar- und Handelsbank*	Closure, afterwards take-over by bank	No external funding
Switzerland	1992	*Bank EvK*	Take-over by bank	No external funding

Source: Goodhart and Schoenmaker (1993).

TABLE 2
The Asian Intermediaries

	Number of Banks and Finance Companies (July 1997)	*Closed/ Suspended*	*Nationalised/ Administered by Restructuring Agency*	*Planning to Merge*	*Foreign-Bought (Majority Stake)*
Thailand	108	56	4	0	4
Malaysia	60	0	0	41	0
Singapore	13	0	0	4	0
Indonesia	228	16	56	11	0
South Korea	56	16	2	0	0

Source: The *Economist* (4 April, 1998).

financial instability in emerging countries, with the aim of detecting sources of financial stress and advising on ways to promote robust financial systems.[3] The outbreak of the crisis in East Asia in the second half of 1997 in which currency devaluations were interlocked with stock market crashes and banks' bankruptcies has given further impetus to that effort. Korea was the beneficiary of the largest internationally concerted rescue package, outstripping the Mexican bail-out.

Even if a precise direction of causality is difficult to ascertain, financial instability may influence macroeconomic performance while macroeconomic developments and policies may in turn have microeconomic consequences for intermediaries. However, the effects of banks' instability are quite different in developed *vis-à-vis* developing countries. In developed nations crises have been limited to the banking sector; domino effects have been absent; intermediaries have often been bailed-out; discussion has evolved on the efficiency of bank regulation and public action. On the other hand, in emerging economies financial crises have had rather disruptive consequences on the whole economy, due to the weaker fabric of financial intermediation and of the entire institutional set-up: Albania and East Asia are the starkest examples of the interconnections between vulnerabilities of the financial sector and the deterioration of macroeconomic performance. Accordingly, one of the topics under discussion internationally is how the IMF might better incorporate banking sector issues in its surveillance activity and improve the design of programmes, the provision of technical assistance, and the co-ordination with other institutions.[4]

After a general discussion of financial crises and bank runs (Section 2), this paper is organised around some classical keywords: bail-outs and bankruptcies (Section 3); insolvency vs. illiquidity (Section 4); the difference between supervision and surveillance (Section 5); the function of the lender of last resort

[3] 'Financial Stability in Emerging Market Economies', Report of the Working Party on financial stability in emerging market economies (April 1997).
[4] Some indications may be found in IMF (1996a).

(Section 6); and the problems of co-ordination and free riding (Section 7). In each section, we first discuss the prototype case of banks for which both established economic doctrine and the practical experience of policy makers and regulators offer clearer indications, even though prudential regulation is often criticised and in the process of continuous change. Further, we turn to the case of countries exploring interactions, analogies and differences between the cases of banks and countries from a number of viewpoints.

While the linkages between banks' and countries' financial difficulties are clear, the analogies between the two cases of bail-out are more blurred and should not be overstated. In both circumstances there exist similar problems of negative externalities, asymmetric information, and both market and government failures. Thus, we use the paradigm of banks' bail-outs to draw some inferences for bail-outs of countries though we are well aware that fundamental differences remain between financial intermediaries and nations and that simple-minded analogies can be misleading.

The endeavour of the paper is fraught with conceptual and empirical difficulties but we are convinced that the analysis can provide interesting insights.

2. CRISES

a. *Financial Crises and Bank Runs*

In finance and banking theory there is no single widely accepted definition of crisis. The meaning of a banking crisis can range from difficulties of individual banks to situations in which a large part of the credit system has collapsed. The literature on this issue is too extensive to be surveyed here, but, for the sake of simplicity, we can single out two fundamental approaches, which may be labelled, respectively, 'monetarist' and 'eclectic'.

In the 'monetarist' view, which finds its roots in the studies by Friedman and Schwartz, a financial crisis originates from a bank panic, which leads to a sharp decline in the money supply, hence to a fall in economic activity.[5] All other types of shocks, even though they can bring about a decrease in wealth, 'are not per se financial crises unless the shift from tangible or financial assets to money leads to a run on banks'.[6] This approach focuses on banks because of the unique role they play in the financial system: through the supply of deposit contracts they

[5] 'A financial crisis is fuelled by fears that means of payment will be unobtainable at any price and, in a fractional-reserve banking system, leads to a scramble for high-powered money. It is precipitated by actions of the public that suddenly squeeze the reserves of the banking system. In a futile attempt to restore reserves, the banks may call loans, refuse to roll over existing loans, or resort to selling assets. (...) The essence of a financial crisis is that it is short-lived, ending with a slackening of the public's demand for additional currency' (Schwartz, 1986, p. 11).
[6] Schwartz (1986, p. 24).

transform illiquid assets into liquid liabilities, which have a smoother and less uncertain pattern of returns than the illiquid assets and which are redeemable at par.

On the contrary, the 'eclectic' view, which may be traced back to Kindleberger (1989), looks at a wider range of disturbances, such as sharp declines in asset prices, failures of large financial intermediaries, or disruption in foreign exchange markets, as having potentially serious consequences for the real economy. As emphasised by Mishkin (1991, 1994 and 1996), transactions in financial markets are intrinsically subject to a problem of asymmetric information: lenders usually do not have full knowledge of borrowers' activity and investment plans. As a consequence, lenders need to solve two problems: first, to select potential borrowers in order to minimise losses due to defaults — which may give rise to an adverse selection problem — and, after the loan is made, to monitor borrowers' behaviour to avoid that it be detrimental to loan repayment — a problem of moral hazard.[7] Hence, a financial crisis is:

> a disruption to financial markets in which adverse selection and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities.[8]

Since the early 1980s, a wide literature on bank runs has developed although the links with the wider concept of financial crisis are not duly considered. As emphasised by Diamond and Dybvig (1983), the illiquidity of assets 'provides the rationale both for the existence of banks and for their vulnerability to runs'. The central point is that the liquidity service offered by banks through the supply of deposit contracts contains an intrinsic instability.[9] Two Nash equilibria may arise: in one the bank is able to meet its obligations with customers; in the other a bank run may develop if people think that only the first depositors will be able to get their money back. The 'first come, first serve' constraint normally followed by banks when they deal with customers may be at the origin of a co-ordination failure in which savers start to withdraw money from a healthy bank, forcing its subsequent crisis.

One conclusion of the debate which has followed the Diamond-Dybvig model is that bank runs may occur because uncertainty exists on the intermediary's profitability or on its general soundness. The literature has therefore focused on the content of information on banks' loans, whose real value is difficult to ascertain and for which a large secondary market does not exist.[10]

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[7] For a more thorough analysis of these issues, see Davis (1992).
[8] Mishkin (1994, p. 9).
[9] The liquidity service offered by banks is central in a class of bank run models such as Diamond and Dybvig (1983), Gorton (1985), Chari and Jagannathan (1988) and Alonso (1996). Empirical analyses of contagion effects are provided by Saunders (1987) and Schoenmaker (1996).
[10] On this debate see, among others, Fama (1985) and Bhattacharya and Thakor (1993).

Today bank runs are much less frequent than in the past because of prudential supervision and deposit insurance and the like.[11] The controversy has thus moved on to focus on the forms which regulation and public action may assume. For instance, narrow banking, i.e. demand deposits being invested entirely in short term safe assets, such as public bonds, has been frequently advocated mainly by the Chicago tradition to solve the intrinsic instability of banking. But, narrow banking 'to cope with the potential problems of banking illiquidity is analogous to reducing automobile speeds to zero'.[12] Public regulation must prevent bank runs through other means, the efficiency of which is, however, open to discussion for the risk that they might impose unbearable costs to the economy (see Section 4).

b. Countries

In the case of countries, we find it useful to start from the notion of debt crisis. Recently, countries' debt crises have been modelled in a similar way to the Diamond-Dybvig model of bank runs, showing that creditors' pessimistic expectations about the borrower's creditworthiness may become self-fulfilling, causing a liquidity crisis.[13] A debt crisis is often associated with a currency crisis. When investors lose confidence in a country's economic outlook, they will try to withdraw their investments. The resulting capital outflow, leading to a decrease of international reserves to some critical level, will force the country to let its currency depreciate. In addition, the turnaround in market sentiment will make a country unable either to issue new debt or to roll-over the outstanding stock, as happened to Mexico between the end of 1994 and the early months of 1995. A similar sequence of events was at the origin of the crisis that beset Thailand, Indonesia and in part Korea in 1997. In countries with a large share of short-term funds in their foreign debt exposure (Table 3), when international investors lost confidence in those countries' capacity to sustain low interest rates, pegged exchange rates, continuously high rates of growth and engaged in massive selling of currencies and assets, sharp devaluations and declines of equity values followed.

In order to reduce the area of ambiguity, some basic notions, such as those of '*country*' and of '*debt*', have to be clarified. The word '*country*' may have two meanings: a legal and an economic one. In the former, it is tantamount to the concept of '*sovereign state*' which is a type of legal person recognised by international law.[14] From an economic standpoint, a country is a heterogeneous entity, comprising a private and a public/government sector, each of which has

[11] Recently some runs have, however, affected the Japanese banks: in November 1995 a line of customers formed outside Daiwa Bank, which had been hit by big losses in its New York branch.
[12] Wallace (1996, p. 9).
[13] See Detragiache (1996).
[14] Brownlie (1987).

TABLE 3
External Debt Exposure of Selected Asian Countries
(billions of US dollars, end-June 1997)

	Towards Foreign Banks[1] *(A)*				*In Securities Held by Non-residents (B)*	*Total (A)+(B)*	
	Total	*Interbank Market*	*Percentage Change Between end-1995 and end-June 1997*[2]	*Percentage of Debt Maturing in 1 Year or Less*			*As a Percentage of GDP*[3]
South Korea	103.3	66.9	27.6	67.7	47.2	150.5	31.0
Philippines	14.1	5.5	7.2	58.7	7.7	21.8	26.0
Indonesia	58.7	12.4	16.2	59.0	7.2	65.9	29.0
Malaysia	28.8	10.5	12.0	56.4	11.7	40.5	40.8
Thailand	69.4	26.1	11.2	65.7	11.1	80.5	44.8

Notes:
[1] BIS reporting banks.
[2] Adjusted for exchange rate changes.
[3] GDP in 1996.
Sources: National Bulletins, IMF and BIS.

economic and financial links with the other one and with the rest of the world. In this paper we equate '*country*' to '*sovereign state*' and consider it in its capacity as a borrower. Hence, the notion of '*debt*' encompasses the whole stock of non-monetary interest-bearing liabilities of, or guaranteed by, the public sector.[15] This definition does not discriminate between different categories of debt holders (resident or non-resident) or between the currency in which the debt is denominated (national or foreign).

Traditionally, the literature has focused on that part of debt held by non-residents, either private or public entities, and usually denominated in foreign currency, i.e. the so-called '*external debt*'. The distinction between domestic and external liabilities of sovereign borrowers has been usually justified on two grounds. First, foreign creditors may invoke the diplomatic protection of their governments (which may be creditors themselves) whenever a country is not current in the service of its debt. Second, in an economy with administrative controls on residents' external financial transactions and with a fixed (or managed) exchange rate, shifts in foreign creditors' portfolios impinge upon the debtor country's stock of foreign exchange.[16] Although with the removal of

[15] International Monetary Fund (1995).
[16] In the case of fixed (or managed) exchange rates, one of the effects of a debt crisis is a run on the official reserves of the debtor country's central bank which may force the country to suspend payments on its external obligations. A similar situation may also arise in the case of flexible exchange rates because shifts in the market may indeed generate unsustainable downward pressures on the exchange rate of the debtor country.

capital controls and the growing reliance by sovereign borrowers on the issue of liabilities in the bearer form, the distinction between domestic and external debt has been blurred, we still refer to 'debt' as 'external debt', since we are interested in the international reverberations of sovereign states' financial distress.

With these premises, a debt crisis can be defined as the incapacity or unwillingness of a sovereign borrower to meet its debt-service obligations. Since 1800, four episodes of debt crisis can be singled out: the 1820s, the 1870s, the 1930s and the 1980s (Table 4).[17] The main difference between the earlier debt crises and the recent ones lies in the form in which they manifested themselves. In the 19th century and the early part of the 20th, the worsening of debt-service

TABLE 4
Debt Crises and Major Countries in Default or Involved in Rescheduling
(estimated amounts of defaulted/rescheduled debt in millions of US dollars in parentheses)

Period	*Country*
1826–1830	Spain (100)[1], Greater Colombia (32), Mexico (26), Brazil (18), Greece (14), Peru (9), Argentina (5), Chile (5)
1840–1845	Spain (160)[2], nine US states (120), Mexico (54), Portugal (44)[2]
1875–1882	Ottoman Empire (1000), Spain (850), Egypt (440), Mexico (170)[3], ten southern US states (158), Peru (150), Colombia (32), Tunisia (30)[4], Honduras (26), Uruguay (15), Costa Rica (13), Bolivia (8)
1890–1900	Argentina (360), Portugal (300), Brazil (146), Greece (100), Uruguay (83), Serbia (68), Dominican Republic (32), Venezuela (22), Colombia (13)
1911–1915	Russia (8500)[5], Ottoman Empire (720), Mexico (500), Bulgaria (160)
1931–1940	Germany (2200), Brazil (1267), Romania (580), Mexico (500)[6], Greece (380), Chile (376), Austria (325), Yugoslavia (320), Poland (300), Hungary (250), Colombia (151), Turkey (140), Uruguay (130), Peru (120)
1982–1986[7]	Mexico (74000), Brazil (28000), Argentina (24000), Poland (22000), Venezuela (21000), Nigeria (11000), Turkey (11000), Yugoslavia (10200), South Africa (10000), Chile (9400), Ecuador (6800), Philippines (4200), Morocco (4000), Romania (4000), Sudan (3600), Peru (3000), Uruguay (2700), Zaire (2400)

Notes:
[1] Suspension of 1824.
[2] Suspension of 1837.
[3] Suspension of 1866.
[4] Suspension of 1867.
[5] Suspension of 1918.
[6] Suspension of 1928.
[7] Estimates for the total amount of rescheduled debt for the years 1982–1986, in the case of Turkey for the years 1979–1986.
Source: Suter (1992).

[17] For a thorough study of debt cycles in the world economy, see Suter (1992). For an analysis of the debt crises in the interwar period, see also Eichengreen and Portes (1987, 1988 and 1991).

difficulties induced several countries to default on their external bond obligations.[18] The situation was worsened by the difficult process of negotiation between debtor countries and bondholders (usually represented by councils). The result was the collapse of international lending. On the contrary, in the 1980s crises took the form of difficulties by countries to service their mostly bank debt. Bank lending then came to a halt, but banks and debtor countries gradually developed a co-operative strategy based on multilateral rescheduling agreements which provided debtors with immediate financial relief. The picture has changed again in the 1990s with the growing share of bond finance and non-bank financial intermediaries in world capital markets (see Section 7*b*).

3. BAIL-OUTS vs. BANKRUPTCIES

a. Definitions and Basic Principles

Bail-outs may be defined as any external intervention, driven by public authorities, in support of a troubled firm to overcome a situation of crisis without interrupting its current business. The intervention changes the ordinary distribution of risks and responsibilities among the parties involved: shareholders, managers, and creditors. Shareholders' ownership rights may be kept inoperative; creditors' expected flow of returns may be deferred; managers may be replaced.

The above definition of bail-outs captures a variety of instances: from cases where the failing firm is rescued by being acquired by others, with the old shareholders replaced by new ones and no public money involved, to other situations where public support is granted and only some claimants are shielded from losses, to other extreme instances where none of the parties involved suffer any losses.

At the other end, bankruptcy may be defined as a compulsory procedure of collective execution of a firm's estate, consisting of selling the debtor's assets and distributing the proceeds to the creditors, according to the legal priority order of claims, and to shareholders. In a bankruptcy, managers are deprived of the right to manage business; creditors' claims are met only in proportion to the firm's liquidated assets; shareholders lose their ownership other than the assets remaining after fulfilling the creditors' claims; the firm as such is dismembered and the associated costs may spill over to the economy as a whole.

Bail-outs of banks may follow a variety of procedures entailing rather different results: a payoff resolution if the bank is liquidated, a merger between the

[18] In the case of default, the borrowing country fails to meet its debt obligations but it recognises them; on the contrary, in the case of repudiation, the borrowing country does not recognise its debt obligations *vis-à-vis* creditors.

unsound bank and other intermediaries, or a variety of forms of restructuring that enable the troubled bank to improve its financial position. On occasions, governments may assume the ownership of the failed banks, possibly only for a short period (as has recently happened in the Nordic countries).[19]

With regard to the forms of restructuring that have been put in place, there is a wide variety and combination of instruments. In some cases managers are replaced and new funds of a public nature are secured. In 1991 for example, 'Government Bank Insurance and Investment Funds' were introduced by law in Norway, to support the banking system, which was hit by the far-reaching crisis of the late 1980s. In other cases, the intervention of private deposit insurance may be sufficient, at a first stage, followed then by an acquisition. In other circumstances, if the financial position is really unsound, banks are liquidated, as exemplified by the large number of failures that affected the Savings and Loans industry.[20]

A cross-country survey of 100 bank failures in the 1980s and early 1990s suggests that in only 19 cases was the crisis dealt with by putting a rescue package in place, while in 29 cases the bank was liquidated; the most common way of dealing with failing banks was their take-over by other banks. As for the sources of funding, only in 24 cases was there no external funding; central banks or governments provided support in 52 instances.[21]

Bail-outs try to solve problems of market failure implied by the instability of banking, but may result in misallocations of resources and inefficiencies: some intermediaries may be rescued and others not; public funds may be allocated badly; competition may be negatively affected by public intervention. A recent example is the Crédit Lyonnais case. After having recorded large losses in 1993, this state-owned bank received state support in the following three years. The first wave of subsidies induced other French banks to apply to the European Commission to preserve competition. The outcome was that the French authorities were urged to privatise the Crédit Lyonnais as soon as the reconstructing process was completed. But the rescue has again run against difficulties; in 1997 new loan losses have been declared and in 1998 the European Commission approved another French government bail-out plan.[22]

As a general guiding principle, single banks should be allowed to fail if their failure does not destabilise the overall financial system. In spite of the special nature of banks there should be nothing automatic about the decision to grant them public support. On efficiency grounds, no protection should be extended to shareholders or top managers. But depositors — large wholesale customers,

[19] On the Nordic countries' banking crises see Drees and Pazarbasioglu (1995).
[20] White (1991) analyses causes and remedies of that crisis.
[21] See Goodhart and Schoenmaker (1993) and Table 1.
[22] See the *Economist* (1997) and the European Commission's decision on the Crédit Lyonnais case (Official Journal of the European Communities, December 1995).

not small retail savers — should also bear some of the burden, in order to stimulate a more careful assessment of the riskiness of individual banks. The State should intervene — using taxpayers' money — only as a residual lender, when there is a true public interest in rescuing the bank to preserve its capital and intangible assets and when comparison of the costs and benefits of the rescue convincingly shows it to be superior to alternative solutions. Scrutiny has to be particularly careful when the Government is also a shareholder — a situation in which it is difficult to draw a sharp line between recapitalisation and state aid.

Competition may be better safeguarded if privatisation is the final result following the initial bail-out. The prospect of privatisation may increase the credibility of the public action. This is the approach followed by the Italian authorities in the 1996 Banco di Napoli crisis: the acquisition of the bank's control by the State has been followed by a competitive auction. However, the goal of privatising the bank has not been reached: the Banco di Napoli's new owners are a bank owned by the Government and an insurance company which is controlled by public-sector banks. The Italian Treasury has announced the privatisation of the buyer bank which will take place in 1998.

b. Extending the Notion to Countries

Turning to the case of countries, a number of caveats are called for because of the particular nature of the borrower. In theory, sovereign states may be regarded as ordinary economic agents that tap international capital markets in order to finance the excess of their expenditures over revenues. As a consequence of exogenous events or mismanagement of domestic policies, sovereign debtors may fail to be current in servicing their foreign financial obligations.

However, the analogy with the case of firms or financial institutions may be misleading. The most striking differences between sovereign and other types of borrowers pertain to the nature and size of the debtor, and the enforcement and renegotiation mechanisms that are applicable.

One of the main corollaries of the principle of sovereignty of states is that obligations arising from customary law and treaties depend on the consent of the obligor. As a consequence, any possible remedy to overcome contingent difficulties in servicing sovereign debt has to be agreed on with the debtor country itself. Moreover, sovereign states are among the largest borrowers from the international capital markets. Therefore, the possibility that one or more sovereign borrowers declare a moratorium on their debt-service payments might affect the stability of financial markets. These peculiar features of sovereign states give them an unusual bargaining power *vis-à-vis* their creditors. In addition, without resorting to the extreme solution of coercion, there is no explicit enforcement mechanism deterring a sovereign borrower from defaulting on its debt.[23] There is no international law that sets out the conditions and procedures to apply in such an event. Contrary to what is usually envisaged in private commercial law, creditors cannot, for instance, rely on the possibility of seizing collateral.[24] Hence, the only compelling reasons for a country to honour its financial obligations may be the fear of punishment, i.e. of the imposition of commercial and/or financial sanctions by creditor countries, and the impairment of its reputation, hence, the subsequent inability of the defaulting country to borrow.[25] In practice, neither of these threats is fully credible because sanctions are costly also for the creditor community and historical experience has shown that past ‘unclean’ debt-service standing has not hindered subsequent market access.

The absence of an internationally agreed legal framework in the case of sovereign lending has important consequences. Firstly, because of the lack of an explicit enforcement mechanism as in the case of commercial law, the actions of the borrower cannot be monitored by the lender; the outcome can be the unintended encouragement of imprudent behaviour. Secondly, the responses to the debt crises have been largely *ad hoc* in nature. In particular, the approach chosen by creditor countries has been adapted to the different mechanisms and types of financial institutions through which saving has been channelled from surplus to deficit countries and hence to the different incidence of the default risk. Thirdly, the renegotiation between sovereign borrowers and their creditors is a lengthy process. This, in turn, complicates the problem of co-ordination among the parties concerned and encourages free-riding behaviour (see Section 7).

Since sovereign states cannot go bankrupt in a strict commercial sense, it is also difficult to define the concept of a bail-out. Generally speaking, any type of intervention of the international community — be it either private financial institutions or official and multilateral creditors — to financially support a state with difficulties in servicing its external debt may be regarded as an operation of bail-out.[26] However, it is possible to differentiate among ‘rescue packages’

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[23] Between the end of the 19th century and the early years of the 20th century, there were some cases of creditor countries’ resort to military power against defaulting countries (Egypt in 1880, Venezuela in 1902, the Dominican Republic in 1905, Nicaragua in 1905 and again in 1911–12). On this see Lindert and Morton (1989).

[24] On the contrary, the pledge of collateral is not unusual in lending between sovereign states, e.g. in the case of the loan granted by Germany to Italy in 1976 and backed by the Bank of Italy’s gold holdings or the recent loan agreement between the United States and Mexico which is guaranteed by Mexico’s oil export revenues. A similar contingency is also envisaged in the Articles of Agreement of the International Monetary Fund in the case of a member country’s request of waiver of the conditions governing the use of the Fund’s general resources (Article V, Section 4).

[25] On this issue, see for example Eaton (1990), Gale and Hellwig (1988), Eaton, Gersovitz and Stiglitz (1986) and Rowlands (1993).

[26] If we draw an imaginary parallel between a country and a ‘typical firm’, we can observe that in the case of bail-outs of sovereign states the management, i.e. the government, is never forced to leave the office. In a democracy, the only potential punishment for the government, if it is deemed to be the cause of the crisis, rests in the hands of the electorate, i.e. the ultimate shareholder.

according to: (i) the nature of the debt-service crisis; and (ii) the mix between adjustment and financing, and within the latter among the different forms of financial support.

4. INSOLVENCY vs. ILLIQUIDITY

a. Banks

Insolvency is the inability of an economic agent to fulfil its obligations. In the case of illiquidity the economic agent is fundamentally solvent but is not able to meet its obligations when they fall due.

Banks' solvency is normally measured by capital adequacy, e.g. by the ratio of capital to total assets or to risk assets. Insolvency refers to the impossibility for the intermediary to use its own funds to cover credit and other losses. Illiquidity refers to an insufficient ratio of liquid assets to some indicator of business size, like total assets or total deposits. An insolvent bank is unable to face its debt and losses; an illiquid bank fails to meet current needs of funds. Permanent capital inadequacy may result in bankruptcy or a decision to bail-out the failing institution; on the contrary, illiquidity may be only a temporary problem.

In practice, the distinction between the two concepts is not easy to draw.[27] Insolvency may depend on the general state of confidence of the market, which may be measured by its degree of illiquidity. Asymmetries of information between the market and a single bank may cause liquidity difficulties to degenerate into a solvency crisis. The price mechanism may not work if the market is not able to ascertain the quality of potential borrowers, in this case banks. A form of credit rationing in the interbank market may occur and public authorities may be compelled to intervene.

Solvency is difficult to ascertain because the evaluation of bank loans is always uncertain. Banks tend in fact to underestimate the value of bad loans, first to improve their balance-sheet accounts, second to decrease the injection of new capital resources which may be required to comply with the solvency risk ratio. Such behaviour is not confined to intermediaries. On the contrary, it is also characteristic of public authorities. During the recent difficulties of their financial system, the Japanese authorities under-reported the amount of banks' non-performing loans. In recent years, non-performing loans have increased in many countries (Table 5).

Historical evidence points to the difficulties that public bodies face in distinguishing between insolvency and illiquidity. The common accusation at central banks is that they bail-out intermediaries that are insolvent, using their

[27] See, for a discussion, Revell (1975).

TABLE 5
Non-performing Loans
(in per cent of total)

	1990	*1994*	*1995*
Asia			
India	n.a.	23.6	19.5
Hong Kong	n.a.	3.1	2.9
Korea	2.1	1.0	0.9
Taiwan	1.2	2.0	3.1
Indonesia	4.5	12.0	10.4
Malaysia	20.6	10.2	6.1
Thailand	9.7	7.5	7.7
Latin America			
Argentina	16.0	8.6	12.3
Brazil	4.7	3.9	7.9
Chile	2.1	1.0	1.0
Colombia	2.2	2.2	2.7
Mexico	2.3	10.5	19.1
Venezuela	3.0	24.7	10.6
United States	3.3	1.9	1.3
Japan	n.a.	3.3	3.4
Italy	5.2	8.8	10.3
Finland	8.0 (*)	4.6	3.9
Norway	9.1 (*)	5.4	4.5
Sweden	11.0 (*)	6.0	4.0

Note:
(*) Data refer to 1992.
Source: BIS (1996).

powers to create liquidity in a highly discretionary way. In 1984, for instance, the Federal Reserve provided liquidity assistance to the Continental Illinois Bank, which was suffering from a run on its wholesale deposits. The later reconstruction of the case showed that the bank was probably insolvent; its bail-out, moreover, was a bad example for the subsequent and inefficient public rescues of many Savings and Loans banks. More generally, a disturbing fact is that in many countries a high fraction of banks receiving discount window support subsequently failed. Less frequent is the opposite accusation at supervisors, i.e. that they liquidate banks which are solvent.[28]

[28] According to Guido Carli, Governor of the Bank of Italy in the years 1960–1974, the choice to liquidate the Banca Italiana di Sconto in 1921 was a mistake, because the intermediary was only illiquid. Cf. Carli (1987).

b. Countries

The notions of insolvency and illiquidity, when applied to the case of sovereign borrowers, need again to be adapted to the particular nature of the debtor. In this case as well as in that of banks the distinction between the two concepts is not easy to establish.

The simple definition of insolvency — negative net wealth — is hardly applicable to sovereign borrowers. In fact, countries do not usually publish a balance sheet where the assets and liabilities of the public sector are explicitly recorded as in the case of a firm.[29] In theory, one could argue that insolvency is not a real issue in the case of sovereign debtors because, in almost all instances, the outstanding debt of a state is less than the assets owned by the government or by its nationals and that the government might seize by resorting to its coercive powers.

In terms which are more relevant to the current discussion, insolvency might be defined by considering the government's budget constraint.[30] A widely accepted concept is that debt cannot accumulate indefinitely without markets questioning the borrower's ability to service it. For a sovereign borrower, like for any other economic agent, the total stock of outstanding debt (domestic plus external debt) cannot exceed the present discounted value of current and future net incomes — i.e., the difference between tax revenues and government expenditures. If this condition is not met, a sovereign borrower can be said to be insolvent. This definition, which focuses on a country's capacity to pay, misses a crucial point: a default is the result of a set of decisions rather than the mechanistic outcome of some unpleasant arithmetics.[31] A sovereign borrower's decision of being or not being current with its debt-service payments depends, at least partially, on its willingness to pay. In fact, the previous condition is derived under the hypothesis of unchanged policies. Therefore, the underlying assumption is that the government deems the economic and political costs associated with a tightening of financial policies — necessary to avoid an explosive path of the debt — excessive with respect to reputation and other costs that might be associated with the decision of defaulting on its debt. On the creditors' side, there is the decision not to extend credit any further whenever it becomes evident that a country is not pursuing sound economic policies.

If the definition of insolvency implies some latitude and discretion, more ambiguous is the concept of illiquidity. A country might be defined to be illiquid if it is denied access to financial markets even though its underlying economic fundamentals are broadly sound. This unwillingness to lend by the markets could

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[29] An exception is New Zealand whose government is bound to publish its accounts in a similar form under the Fiscal Responsibility Act adopted in 1994.
[30] Arora (1993) and Eaton (1993).
[31] Eaton, Gersovitz and Stiglitz (1986), Eaton and Gersovitz (1981) and Summers (1996).

be justified on the basis of an asymmetry in the available information between lenders and the borrower; or more precisely on the basis of a different perception by the markets of the sustainability of current policies to meet current debt-service obligations. The failure of capital markets to provide adequate support to an illiquid but solvent country may also be the direct consequence of a co-ordination failure, i.e. the inability of creditors to recognise that it would be in their mutual interest to continue to lend to the debtor country.[32]

In sum, the following pragmatic distinction between insolvency and illiquidity can be made. A liquidity crisis arises when the impairment of a country in servicing its debt can be overcome by a combination of debt rescheduling, new financial support, and macroeconomic adjustment (cum reforms). A solvency crisis, instead, implies that no realistic adjustment programme can restore financial stability in a reasonable period of time without the adoption of concurrent measures of debt relief.

In this different perception of the roots of the 1980s debt crisis rests the main difference between the debt strategies envisaged initially by the former US Treasury Secretary Baker and subsequently by his successor Brady. The basic philosophy was the same, i.e. to restore debtors' capacity to service their debt thus improving their creditworthiness and access to international financial markets. However, the Baker plan was structured assuming that the crisis was essentially a short-term liquidity problem.[33] Therefore, it emphasised the adoption of structural reforms and growth-oriented policies in the debtor countries supported by continued external financial assistance. On the contrary, the Brady plan, though endorsing the key elements of the previous strategy, acknowledged that the crisis was one of near insolvency and therefore placed debt and debt-service reduction at the centre of the strategy.[34]

5. SUPERVISION, SURVEILLANCE AND MORAL HAZARD

a. Supervision of Banks

Traditionally, banks have been subjected to greater regulation than industrial firms. Lately, a number of empirical and theoretical criticisms have been levelled at such an attitude. From an empirical standpoint, technological innovations have reduced the effectiveness of some regulations, because the distinctions between once different financial products and intermediaries have been blurred; moreover, regulation failures, as in the Savings and Loans experience, have reinforced the

[32] The underlying assumption is that the value of individual loans depends on the behaviour of the other creditors.
[33] This also explains the refusal of creditor governments to bail out commercial banks.
[34] Guitian (1992b), Cline (1994) and Dooley (1995).

arguments against the traditional justification for public intervention in banking. On the theoretical side, research and policy discussion have increasingly advocated a 'laissez faire' attitude. This has resulted from different strands of thought: the 'rational expectations revolution', with its emphasis on the structure of policy regimes; the 'public choice' theory with its sceptical view of government and regulations; the revival of 'Austrian economics', with its attention to institutional frameworks being formed spontaneously without central design; the 'regulator capture' theory, with its critique of the public interest as the origin of supervision.[35]

Changes in the forms of financial surveillance have resulted from such criticisms. Barriers to entry and geographical expansion have been relaxed. In the USA, for example, the 1994 Interstate Banking and Branching Efficiency Act relaxed several constraints to the geographic expansion of banks.[36] In many countries portfolio restrictions and forms of specialisation, preventing banks from entering some line of activities or precluding the joint supply of two or more products, have been reformed. A trend towards the 'universal bank' model seems to prevail which allows banks to offer different products or to create financial groups.[37]

Excessive credit and market risks are the classic determinants of banks' financial troubles and are influenced by macroeconomic instability, the degree of banking competition, the actual content of the separation between banking and commerce, the structure of financial conglomerates, and the effectiveness of internal and supervisory controls.

Regulatory failures contributed to the problems of Asian banks. Many countries in that area are characterised by a highly concentrated credit structure and strong interconnections between banks and firms. This was especially the case of the Korean 'chaebol', the system of relationships between the financial structure and the country's big industrial groups.

Even if credit risk is still the most important source of bank failures, the cases of Herstatt, Barings and other intermediaries heightened the attention devoted to the different forms of market risk. Regulation has designed specific tools to limit interest rate and foreign exchange risks. In 1993 the EC capital adequacy directive introduced capital requirements to face market risks. In 1995 the Basle capital ratios were amended to incorporate provisions towards market risks. Banks have a choice: either they can use their own financial models to calculate how much capital to hold against their risks or they can use the regulators' standard formula. If the first choice is adopted, each bank will calculate a 'value

[35] For a survey see Selgin and White (1994).
[36] See Rose (1996) and Jayaratne and Strahan (1996).
[37] The Glass-Steagall Act is under growing criticism in the USA. See Kroszner and Rajan (1994 and 1995).

at risk' for itself, i.e. the maximum amount that it might expect to lose by holding a particular position for a certain period. This 'market-friendly' regulation will probably be adopted mainly by large intermediaries; meanwhile the smaller institutions will follow the regulatory rule.

The general thrust of the recent evolution is a sharper focus on preventive measures and the efficiency of supervisory instruments. The Federal Deposit Insurance Corporation Improvement Act, approved by the US Congress in 1991, introduced forms of pre-commitment for supervisors, requiring them to take prompt action against troubled banks in order to minimise the cost for public resources.

Banking regulation has also to keep a balance between two different needs. On the one hand, it must go on relaxing barriers and unjustified limits to banks' activity, erasing bureaucratic attitudes that have often characterised public action. On the other hand, the awareness of the riskier environment in which intermediaries operate and the recent failures, might require supervisors to take a more active part in banks' strategic choices.[38]

In prudential regulation, moral hazard, i.e. the unintended encouragement by supervisors of imprudent behaviour by intermediaries, may be a limit to public action. Moral hazard derives from banks' shareholders and managers mainly handling other people's money rather than their own and from the intrinsic asymmetry of information between the intermediary and its depositors. The establishment of deposit insurance has been largely criticised on the grounds that it would induce moral hazard. According to these critiques, deposit insurance may cause more problems than it solves: managers may try to increase the riskiness of the bank's portfolio because a lower ratio between capital and assets leads to an increase in the value of the guarantee, with a gain for the owner of the bank.

However, it is not obvious that deposit insurance induces moral hazard: normally shareholders and managers of failed banks are punished for their risky behaviour; in such a way the consequences of a bankruptcy (or even of a bail-out) are distributed among the different actors. In addition, two arrangements have been envisaged to deal with the possible flaws of deposit insurance. The traditional avenue has been one of designing optimal contracts which require some sharing of risk between the parties, according to the so-called 'co-insurance principle': deposit insurance does not cover the larger deposits; even for the smaller sums, the coverage may not be complete.[39]

[38] The point is discussed in Hellwig (1995). On banking regulation see Dewatripont and Tirole (1994), Goodhart (1996a and 1996b) and Quinn (1996).
[39] This approach has influenced the EU Directive on Deposit Insurance in 1993.

b. Surveillance of Countries

Even if there are substantial differences, we may draw a parallel between the supervisory function which is assigned to central banks or other public agencies and the IMF's surveillance over countries' economic policies and performances.[40] Such a function has been traditionally undercut by two factors: (i) the absence of a minimum set of widely-accepted rules which may give an operational content to the general principles outlined in the Articles of Agreement; (ii) the absence of adequate instruments of enforcement of the Fund's prescriptions, which marks one of the sharpest differences with respect to national supervisory powers.

The demise of the Bretton Woods system removed a crucial yardstick to assess the extent to which a country's domestic policies were in step with the requirements of an international 'order', i.e. the maintenance of a stable exchange rate. The move to a generalised system of floating provided scope for more discretion in the conduct of domestic policies. This might have been not an adverse consequence per se provided that the higher degree of freedom at the national level be offset by tighter scrutiny at the international one. The actual experience with the conduct of surveillance has been, however, rather mixed: the process has suffered from a basic asymmetry stemming from whether or not a member country makes use of Fund resources.

The Mexican crisis highlighted the limitations of the current institutional setting. The main challenge was to avoid the risk of contagion to other emerging economies associated with the sudden loss of confidence in one market and the attempt by investors to reshuffle the composition of their portfolios by disinvesting elsewhere in order to, at least, compensate for initial capital losses. The IMF was not only unable to foresee the crisis but also breached the conventional limits of access to its resources to provide less than a half of the rescue package.

The need for increasing resources available to the IMF to support countries in distress, however, goes hand-in-hand with the need for strengthening its surveillance activity. The efforts aimed at intensifying the exchange of information between the IMF and the authorities of member countries and improving the prompt availability and the quality of macroeconomic and financial data are all necessary steps to enhance the IMF's policy advice but do not provide the institution with suitable instruments for enforcement.[41] A rating

[40] On this issue, see the thorough review by Guitián (1992a).

[41] The IMF established a Special Data Dissemination Standard (SDDS) for provision of economic and financial statistics to the public by member countries. The SDDS sets the norms for IMF members that choose to participate. These are expected to be countries that participate in international capital markets or aspire to do so. In addition, the Fund opened, on the Internet, the Dissemination Standards Bulletin Board (DSBB), which describes the dissemination practices followed by 18 member countries that have, so far, subscribed to the SDDS.

agency often has more leverage on a country than the IMF since a potential downgrading of the country's debt translates immediately into higher costs of borrowing on the international capital markets.[42] In addition, even if publicly available information were perfect, crises would still occur.

Moral hazard may arise not only in banking regulation but also in international lending to countries, because creditors are unable to ascertain the amount of disbursed credit that the sovereign borrower devotes to finance current expenditures as opposed to productive investment projects. If a high share of external financing goes to consumption, the growth prospects of the debtor country may be impaired and its debt-servicing capacity undermined. The issue becomes more sensitive when support from official sources is granted to debtor countries in cases of financial stress or to support their adjustment programmes. For example, some have argued that foreign banks had granted large loans to Asian countries with the certainty that those governments and the IMF would have covered the losses on private operations should a crisis develop. Another instance is when official support, when it assumes the form of debt forgiveness or debt reduction, discourages rather than fosters the pursuit of the necessary corrective policies. The result under those circumstances may be inappropriate financing by creditors. This can be avoided only through adequate IMF conditionality — which carries costs for the borrowing country — and the appropriate balance between adjustment and financing. These can be seen as mechanisms of 'co-insurance' with a view to avoiding such undesired consequences.

6. LENDER OF LAST RESORT

a. A Classic Story

Banks and other financial intermediaries facing temporary shortages of reserves or insufficient liquid assets can borrow funds from other institutions. Ailing banks in need of reserves may also resort to the Central bank if the interbank market is imperfect. There should be nothing automatic about the Central bank acting as a lender of last resort. The general aim should be to prevent systemic risk and safeguard the financial system as a whole, not any single institution.

The key problem lies in the difficulty of distinguishing between insolvency and illiquidity. It has been claimed that in some cases there was no time to examine the balance sheet of the bank asking for liquidity; in such cases, the lender-of-last-resort function was activated, even though the solvency of the

[42] For a similar argument, see Minton-Beddoes (1995).

borrower was subject to doubt, in order to avoid risks of contagion.[43] Liquidity supply for large banks may be more generous than for smaller institutions because a big intermediary has a stronger position in the interbank market, a higher number of depositors, a more important role in the financial support of industrial firms, thus a greater leverage on the overall economy. However, as the BCCI case has proved, no bank is too big to fail if its liquidation does not involve systemic risk. 'Prompt corrective action', automatic closure rules and separation between monitoring and closure responsibilities have been advocated to force supervisors to a more restrictive and efficient use of the lender-of-last-resort powers.

b. A 'Lender of Last Resort' for Countries?

Financial globalisation has made the real sector of the economy more vulnerable to upheavals in financial markets and underscored one of the key drawbacks of the current international monetary disorder — the absence of an international lender of last resort (ILLR).[44]

The debate on the need for such an institution dates back to the Bretton Woods negotiations.[45] The issue surfaced again in the 1970s when the international activity of commercial banks increased dramatically with the advent of the Eurocurrency markets and the need for recycling the sizeable surpluses of OPEC countries.

In a nutshell the issue has two dimensions. The first one is whether or not there is a need for such a function at the international level. If so, the second dimension of the problem is what institution, or group of institutions, should perform it.

In his thorough study of financial crises Kindleberger (1989) notes that the international dimension of crises makes a case for an ILLR. When a crisis is unfolding, countries may face limited access to capital markets even though they are implementing the appropriate policy corrections. The causes of this 'international' credit rationing may be traced back to either asymmetric information or policy lags. On the contrary, Schwartz (1986) and Meltzer (1986) and others reject such a proposal on two grounds: first, an ILLR would exacerbate the risk of moral hazard by sovereign borrowers as well as by international banks; second, the authority to create base money, that is the very *raison d'être* of a lender of last resort, remains within the purview of national central banks.

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[43] On this point see Goodhart and Schoenmaker (1995, p. 549).

[44] Guttentag and Herring (1983) and Sachs (1995).

[45] The plan put forward by Keynes was centred on the establishment of an International Clearing Union, that would issue a new international money to be called *bancor*, and provide automatic financing of current account deficits. In fact, the institutional setting eventually outlined at Bretton Woods was less ambitious in nature.

The second dimension of the problem is clearly emphasised by Kindleberger:

> With no world government, no central bank, and weak international law, the question where last-resort lending comes from is a crucial one (1989, p. 201).

Historically such a role was informally performed by either the central bank or the most important financial institutions of the leading financial centres of the world: initially Britain and France, and after World War II the United States. In 1945, the institutional setting that was shaped at Bretton Woods fell short of providing a full-fledged ILLR.

The IMF was created in order to provide financial assistance to member countries to correct external imbalances without resorting to trade and payment restrictions. However, the principles governing its lending activity can hardly be reconciled with the classic Bagehot rules of: (a) lending freely to solvent borrowers; (b) against good collateral; and (c) at a penalty rate.

In the aftermath of the Mexican crisis two important results were achieved towards strengthening several aspects of the Fund's capacity to cope with abrupt and spreading crises. The first has been the setting up by the IMF of an Emergency Financing Mechanism (EFM),[46] and the doubling of the lines of credit made available to the Fund by member countries, through the General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB). More recently, another brick has been added with the Supplemental Reserve Facility (SRF), established by the IMF in the aftermath of the Korean crisis.[47] This facility provides an almost unlimited access to Fund resources, albeit at a penalty rate which increases over time thus providing an incentive for a speedy repayment of the loan. Such a facility should endow the IMF with an adequate instrument of intervention to deal with countries' short-term liquidity needs resulting from confidence crises or contagion and not necessarily related to their economic fundamentals.

Is the system therefore moving, though prudently, towards the establishment of an ILLR? Could the IMF perform such a function?

The answer to the first question can only be tentative. Recent experience has shown that a need exists for a mechanism to shore up market confidence and maintain orderly market conditions especially in emerging economies which lack co-operative instruments, such as co-ordinated intervention in currency markets, to meet sudden collapses of confidence or contagion effects. However, although

[46] The EFM is only an exceptional procedure to facilitate a rapid approval in the event a member faced a crisis.

[47] 'This facility has been put in place to provide financial assistance to member countries experiencing exceptional balance of payments difficulties due to a large short-term financing need resulting from a sudden and disruptive loss of market confidence reflected in pressure on the capital account and the member's reserves' (IMF, Press Release No. 97/59). Until now, this facility has been used only in the case of Korea: SDR 9,950 million of the Fund-supported programme (SDR 15,500 million) have been made available under the SRF.

the goal of reducing instability may require corrective public action, this public intervention can be successful only if it is consistent with the aim of maintaining market discipline.[48] Preserving the correct workings of market incentives is the only way in which the problem of moral hazard — from both the creditor and debtor perspective — may be reduced.

As far as the second question is concerned, our view is that, even if its operational setting were radically changed, the IMF's mutation into a full-fledged ILLR would be hindered by three basic facts. First, the IMF does not issue its own, globally-accepted fiat money: the SDR is a hybrid instrument and its issuance is governed by very restrictive rules. Second, the Fund's surveillance powers are of limited scope and lack enforceability. Third, the Fund still remains a co-operative institution whose activity can hardly be based on the tenets of 'pure' central banking.

7. CO-ORDINATION AND FREE-RIDING

a. Banks

Because of the possible large externalities and contagion effects associated with financial troubles of multinational banks, international co-operation between bank regulators has a long tradition.[49] Back in 1974, following the Bankhaus Herstatt crisis in Germany, the Basle Committee was created with the goal of fostering co-operation between national supervisory bodies; in 1975, the first Basle Concordat introduced some principles of supervisory control of foreign branches and subsidiaries. Italy's Banco Ambrosiano's failure in 1982 contributed to the approval of a second version of the Concordat, which focused on consolidated supervision, specifying practical steps to assign responsibilities to national authorities with respect to multinational banking. Finally, the 1991 BCCI's case showed that the bank had deliberately confused regulators by shuffling its assets between different jurisdictions. The BCCI's failure led to the Minimum Standards Agreement, which enforces consolidated supervision, assigning responsibility to the 'home-country' authority and subordinating the international expansion of intermediaries to the availability of information and supervision.

Overall, the international co-ordination of bank supervision has made progress mainly in the area of prevention, while little has been achieved in the area of crisis management. The European directive on the reorganisation measures and winding-up procedures of credit institutions is very slow in taking off and only an informal agreement has been reached for crisis management. As far as pitfalls in

[48] See, for instance, Crockett (1997).
[49] This analysis is taken from Padoa-Schioppa (1994).

supervisory co-ordination are concerned, in 1995 the Federal Reserve Bank of New York protested that Japan's Finance Ministry had failed to alert it to the problems at Daiwa's New York branch for more than a month after its $1.1 billion bond loss.

b. *Countries*

In the case of sovereign borrowers' debt, difficulties in devising collective action are exacerbated by the absence of an internationally agreed legal framework. As a result the international community's reactions to sovereign debt crises have been largely *ad hoc*, a reflection of the particular types of financial instruments and institutions involved, of the different historical circumstances, and the like.

In the 1930s, the bulk of foreign lending took place through the issue of bonds, a rather small share of which was held by creditor countries' commercial banks. Hence, sovereign borrowers' defaults did not represent a serious threat to the stability of their respective financial systems. Broadly speaking, the creditor countries' reaction was to let the market work. The defaults were settled through lengthy negotiations between debtor countries and bondholder councils.[50] As a consequence, most of the defaulting countries were able to regain access to financial markets only 40 years later.[51]

On the contrary, in the debt crisis of the 1980s, a similar confrontational approach might have endangered the stability of the international banking system,[52] given the dominant role played by commercial banks. This threat urged the international community to envisage a more co-operative strategy. The aim was to achieve an equitable burden sharing among the main actors involved: commercial banks, official creditors and debtor countries.[53] In this regard, the IMF played the crucial role of co-ordinator by providing the appropriate framework, that is the typical Fund-supported adjustment programme. Crucial players were also the Paris and the London Club, which represented two important fora for co-ordinated action of official and private creditors, respectively, in order to combine debt relief operations with the provision of new financial assistance in support of debtor countries' adjustment efforts. Yet international financial institutions and creditors do not provide a formal institutional framework to cope with financial crises. The process of dealing with sovereign borrowers' debt-service difficulties is still essentially voluntary in nature and exposed to the problem of free riding especially as far as private

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[50] Usually, it took between five and ten years to reach an agreement on debt restructuring.
[51] Eichengreen and Portes (1987, 1988) and Ernandez-Ansola and Laursen (1995).
[52] When the crisis erupted, the large US banks had an exposure to developing countries amounting to 150 to 200 per cent of their capital, especially in Latin America.
[53] See for example Lipson (1986).

TABLE 6
Aggregate Net Long-term Resource Flows to Developing Countries

	1980	*1990*	*1993*	*1994*	*1995*	*1996*[1]
			(billions of US dollars)			
Official flows	34.3	56.3	55.0	45.7	53.0	40.8
Private flows[2]	51.7	44.4	157.1	161.3	184.2	243.8
of which:						
Commercial bank loans	21.6	3.0	−0.3	11.0	26.5	n.a.
Bonds	2.6	2.3	35.9	29.3	28.5	n.a.
Portfolio equity investment	0.0	3.2	45.0	32.7	32.1	45.7
Foreign direct investment	5.1	24.5	67.2	83.7	95.5	109.5
Aggregate net resource flows	*86.1*	*100.6*	*212.0*	*207.0*	*237.2*	*284.6*
			(in per cent of total)			
Official flows	60.1	55.9	25.9	22.1	22.3	14.3
Private flows[2]	60.1	44.1	74.1	77.9	77.7	85.7
of which:						
Commercial bank loans	25.1	3.0	−0.1	5.3	11.2	n.a.
Bonds	3.0	2.3	16.9	14.2	12.0	n.a.
Portfolio equity investment	0.0	3.2	21.2	15.8	13.5	16.1
Foreign direct investment	5.9	24.4	31.7	40.4	40.3	38.5

Notes:
[1] Projections.
[2] Includes publicly guaranteed flows.
Source: World Bank — Global Development Finance (1997).

creditors are concerned. In fact, debt rescheduling has not always been an orderly process because commercial banks have not acted as a cohesive group of lenders.

Recently, in the case of Korea the concerted effort by the Group of Seven to use ‘moral suasion’ on the banks to secure an orderly rollover of their short-term loans was crucial to stem the crisis. But given the present configuration of international capital markets, and in particular the growing share of bond financing and of non-bank financial intermediation (Table 6), a number of different, more complex, scenarios can be envisaged. First, the growing dispersion of creditors makes it particularly difficult to replicate the concerted strategy of the 1980s. Second, free-riding behaviour might be encouraged: in fact, dissenting bondholders might benefit from windfall capital gains if a debt reduction agreement were reached between the debtor country and part of the creditor community since this would increase bond prices on the secondary market. In the aftermath of the Mexican crisis considerable work was carried out in international fora, chiefly the Group of Ten,[54] to explore possible ways of

[54] *The Resolution of Sovereign Liquidity Crises* (a Report to the Ministers and Governors of the G-10, May 1996).

dealing with this problem, but very little was done in practice to adapt existing procedures and institutions.

One solution that has been advocated would be to consider co-ordinated, temporary, standstills in servicing foreign debt. In such a context the IMF would remain at the centre of the stage, both to ensure orderly work-out procedures and to provide interim finance to countries under stress but nonetheless pursuing appropriate policies. To the latter purpose, the IMF would broaden the scope of its well-established practice of 'lending into arrears' to signal to the market its approval of those countries' policies.

In our opinion, 'lending into arrears' by the Fund should be a component of a co-operative strategy aimed at ensuring an equitable burden sharing between debtors, creditors — both official and private ones — and multilateral institutions. It would be a means through which 'working capital' is provided to the country in financial distress, not a 'bail-out' of creditors that assumed excessive risks. Furthermore, the recourse to this type of lending should be limited to exceptional circumstances in order to introduce an element of uncertainty or, as it has been called, 'constructive ambiguity'.[55] This would allow for pressure on market participants — both creditors and debtors — to act prudently, because they would not be certain of official support.

8. SUMMARY AND CONCLUSIONS

While exploring interconnections, analogies and differences between crises and bail-outs of banks and countries we have discussed a number of unsolved issues at the intersection of international finance, the economics of regulation and public policy. In drawing conclusions, we also outline a tentative list of items which should be included in an agenda for future work, for purposes of both research and policy design.

First, as far as banks are concerned, recent crises have confirmed that good internal and external governance may be insufficient to ensure full stability in banking. In fact, efficient management and proper internal oversight do not guarantee good governance of intermediaries; market discipline may fail as well if, for instance, market participants have insufficient information.[56]

The presence of market failures is a necessary condition for public action, not a sufficient one. Indeed, while the theoretical explanations of banks' instability and the recent spate of crises of intermediaries tend to reinforce the classical arguments in favour of regulation, we should carefully consider the adequacy of present regulatory arrangements, their ability to correct market failures, and the possible inefficiencies they introduce in the competitive process.

[55] See Crockett (1997).
[56] On these microeconomic aspects see IMF (1996c).

In particular, among the concrete tasks which regulators should focus their attention on is an effort to ensure that bail-outs do not impose excessive costs on the tax-payer. In fact, in recent years bail-outs have been largely based on public aid. While in the course of a bail-out state control may be accepted it should be followed by privatisation. Public authorities involved in managing banking crises should be accountable; bail-out procedures should be clearly designed and rigorously followed.

Second, important differences exist between nations and banks or financial institutions in general.

As we have argued in Section 3*b*, sovereign states enjoy a peculiar bargaining power *vis-à-vis* their creditors both because of their very nature and size, so that in the event of default of a large sovereign borrower the stability of financial markets world-wide might be put in jeopardy, and of the weakness of enforcement mechanisms that can deter such a sovereign borrower from defaulting on its debt obligations. On these accounts, a simple-minded analogy between countries and banks is flawed: ultimately, the decision of a sovereign state to default or suspend its debt-service payments is largely a voluntary one and the safeguards against moral hazard built into domestic bankruptcy codes cannot be applied to a state.

In other words, a sovereign debtor does not go ‘bankrupt’ in a strict commercial sense. As the Group of Ten report put it:

> It would be neither appropriate nor possible to replace the authorities responsible for the economic policies of a sovereign state with a new management, or to take possession of a state’s non-commercial property. The need for additional protection from creditors has not in the past been a serious problem for sovereign debtors. Such debtors have few assets to seize and some of these benefit from sovereign immunities (‘The Resolution of Sovereign Liquidity Crises’, a Report to the Ministers and Governors of the G-10, May 1996, p. 8).

Yet, especially since the Mexican crisis and the momentum impressed by the Group of Seven leaders in Halifax in 1995, ways to prevent, manage and resolve countries’ financial crises have become a paramount concern in the international community’s agenda.

Such urgency has been heightened in the aftermath of the crisis in East Asia. Standard IMF lending instruments were ill-suited to cope with crises characterised by large short-term liquidity needs due to a sudden collapse of market confidence. Especially when contagion and systemic risk are involved, financial assistance is required which is at the same time sufficiently large in magnitude and quickly available, although provided at a penalty rate. In this light a major step forward has been the newly created *Supplemental Reserve Facility*, which endows the IMF with an appropriate instrument of intervention.

We do not advocate that the IMF become a full-fledged international lender of last resort. In fact, it would not be able to do so because, unlike a central bank in the usual domestic context, the IMF does not issue its own fiat money now it does have full powers of surveillance and enforcement.

Moreover, it is essential that the limited resources at the disposal of the IMF and more generally of the official community be used to avoid undue strains to international financial markets, not to protect lenders from the consequences of their imprudent behaviour.

To this purpose, mechanisms should be put in place to ensure an equitable burden-sharing of the cost of handling financial crises. When a relatively small number of big banks hold the bulk of a country's foreign debt, as in the Asian crises, securing that short-term foreign loans are rolled over or rescheduled in an orderly fashion is made somewhat easier. Indeed, in the case of Korea the concerted effort by the Group of Seven to use 'moral suasion' to this effect was crucial to stem the crisis. But given the growing share of bond financing and of non-bank financial intermediation, the merits of more formal work-out mechanisms should be reconsidered: among them, co-ordinated, temporary, standstills in servicing foreign debt to stem foreign exchange crises of particular gravity. Under such circumstances, the IMF's policy of 'lending into arrears' might prove a useful ingredient of a strategy aimed at an equitable burden-sharing between debtors, creditors and multilateral institutions.

Finally, since crisis prevention is such a crucial part of the story and domestic financial distress so often a key ingredient in international crises, it is essential that country surveillance better incorporate the performance of the banking system. To this end, the BIS and the IMF should endeavour jointly to establish a far more rigorous system of monitoring of prudential arrangements (capital adequacy, disclosure rules, risk ratings, deposit insurance, etc.).[57]

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[57] On this front a first, important step has been made with the recent Basle Committee text on 'Core Principles of Effective Banking Supervision'.

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